

PA-2400W

Hardware Manual

(Version 1.01 US)

CASIO Computer Co., Ltd.

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1. Overview

This hardware manual describes the hardware specifications and descriptions of the H/PC (CASSIOPEIA PA-2400W). The model runs the Windows CE US Ver2.11 operating system.

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1.1 Features

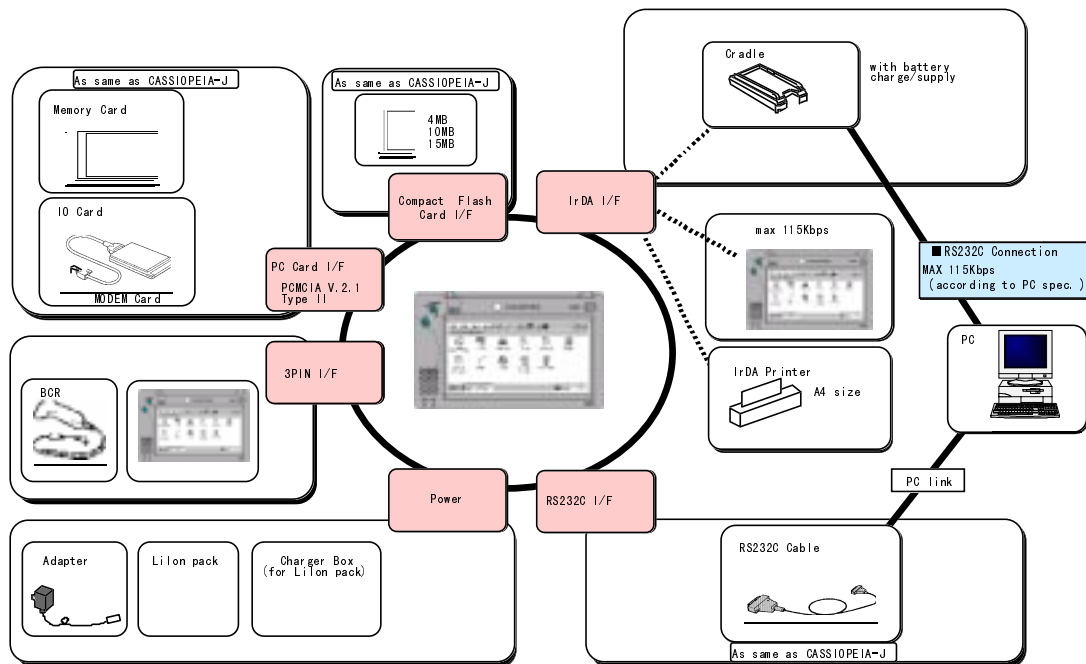
For the features of pre-installed software products, please refer to Chapter 1.1 “Features” on page 3 of PA-2400W Software Manual.

2. System Configuration

2.1 System Block Diagram

The system block diagram shows typical system configuration with the PA-2400W and its dedicated options available. The system configuration can meet various needs required by end-users.

Fig. 2.1 System Block Diagram



2.2 Available Model

Table 2.1 Available Model

Model	Memory Size			Remark
	DRAM	Mask ROM	FROM	
PA-2400W	8 MB	16 MB (OS: 8 MB x 2)	-	Pen version

2.3 Available Options

Table 2.2 List of available options

Product	Model	Description	Remark
I/O Box (Master)	PA-2110IF-E	IrDA - SCSI conversion	*2
I/O Box (Satellite)	PA-2111IF-E	IrDA - RS-232C conversion	Enable to recharge
Battery pack (720 mA/H)	PA-2020LI	Lithium-ion rechargeable battery pack	
Dual recharger	PA-2040DCHG-E	Recharges the battery pack.	New product
AC adaptor	AD-C50200-U	for PA-2400	AC input : 120V
	AD-C50200-G	for PA-2400	AC input : 230V *2
	DT-825ADP-U	for Satellite/Master I/O Boxes	AC input : 120V
	DT-825ADP-G	for Satellite/Master I/O Boxes	AC input : 230V *2
PC connection cable	TPX1375-010100 (no. 33356594)	RS-232C cross-type cable	To be supplied with PA-2400W.
3-pin cable	SB-62	For connecting Casio digital camera and an existing model	Existing product *2
3-pin BCR	BR-100	Pen scanner	Existing product *2
Compact flash card adapter	CF-AD1-S	Compact flash to PCMCIA conversion	New product *2
I/O Box daisy-chain connection cable	DT-888RSC	RS-422	*2
I/O Box cable	DT-882RSC	RS-232C cross-type (9-pin female to 25-pin male)	*2
	DT-883RSC	RS-232C cross-type (9-pin female to 25-pin female)	*2
	DT-887AX	RS-232C cross-type (9-pin female to 9-pin female)	
	SB-751HF	SCSI cable between PA-2110IF-E and PC	*2
	SB-752HF	SCSI cable between PA-2110IF-E and PC	*2
	SB-753HP	SCSI cable between PA-2110IF-E and PC	*2
IrDA printer	HP Laser Jet 6Pse	Laser jet printer	available from Hewlett Packard

Note:

*2 : These items are not supported in US. Please ask the product availability to our sales.

2.4 PC Card

Table 2.3 List of available PC cards (Some items are not supported in US, please ask our sales)

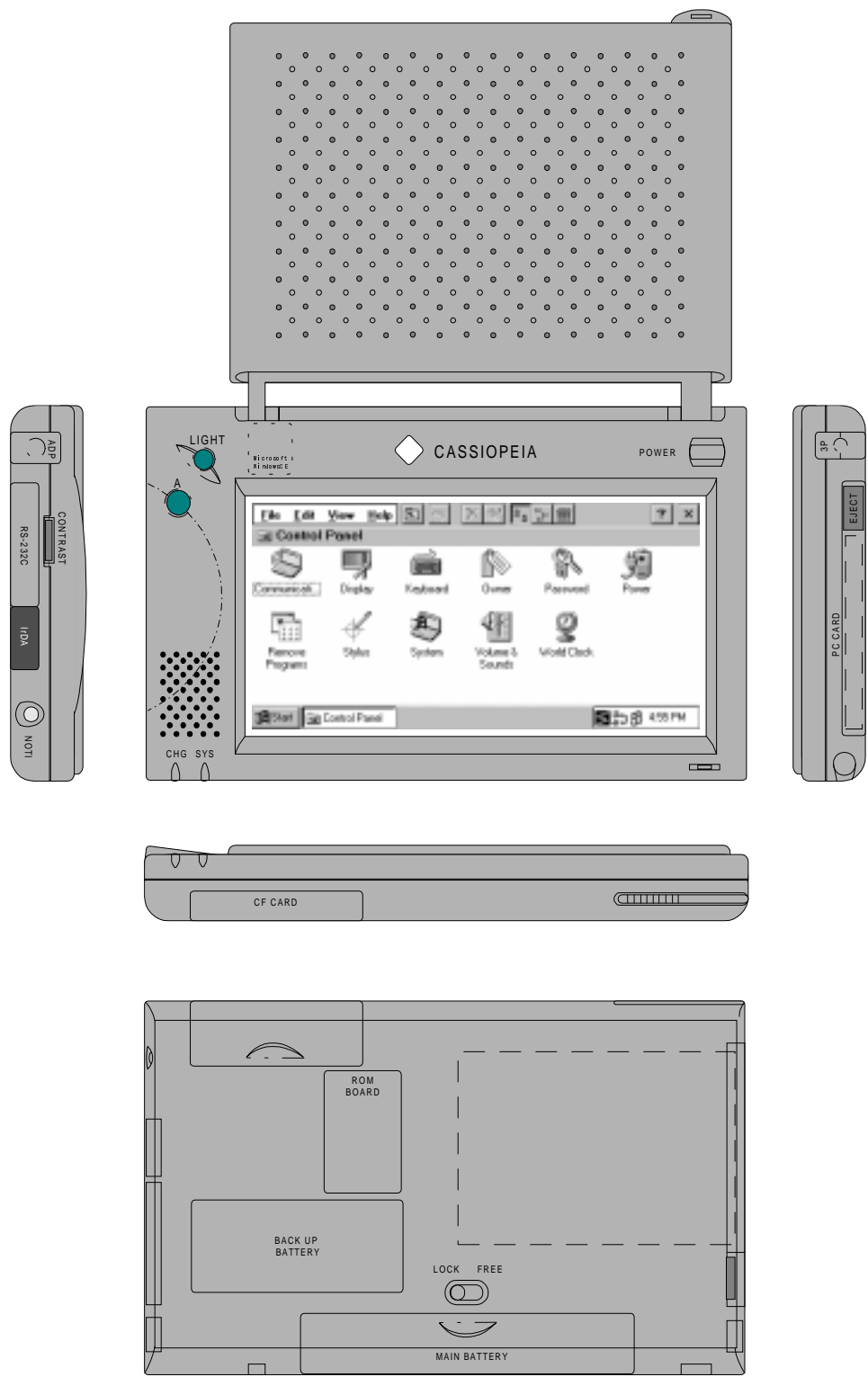
Product	Model / Size of memory		Remark
SRAM card	DT-635MC	256 KB	Existing products
	DT-636MC	512 KB	
	DT-637MC	1 MB	
	DT-638MC	2 MB	
ATA flash card	DT-9031BFMC	4 MB	Existing products
	DT-9032BFMC	6 MB	
	DT-9033BFMC	10 MB	
	DT-9034BFMC	20 MB	
Compact flash card	CF-4-S	4 MB	OEM from SANDISK (new)
	CF-10-S	10 MB	
	CF-15-S	15 MB	

Note:

Operability of PC card not listed in Table 2.3 above must be checked thoroughly by user if it is used in the PA-2400W. CASIO will assume no responsibility against malfunction, damage in the PA-2400W or whatsoever caused by using locally available card.

3. External View

Fig. 3.1 External view of PA-2400W



4. Specifications

4.1 CPU

Table 4.1 CPU

Item	Specification	Remark
CPU	Hitachi SH-3	
Clock	80 MHz	

4.2 Memory

Table 4.2 Memory

Item	Specification	Remark
DRAM	8 MB	System memory, object storage memory
MASK ROM	16 MB (8MB x 2 pcs)	System ROM

4.3 Touch Panel

Table 4.3 Touch Panel

Item	Specification	Remark
Type	Analog resistance membrane (non-glare)	
Resolution	480 (H) x 240 (V) dots	A/D 10-bit

4.4 Display

Table 4.4 Display

Item	Specification	Remark
LCD panel	FSTN	
Backlight	EL backlight	Color: blue-green
Display size	480 (H) x 240 (V) dots	
Dot pitch	0.275 mm/pitch	
Gradation	B/W 4 levels	
Contrast	Hardware control + temperature compensation	

4.5 Switches

Table 4.5 Switches

Item	Specification	Remark
POWER switch	Toggle switch for power ON/OFF	
SIP key	Toggle switch for SI panel ON/OFF	
LIGHT switch	Toggle switch for EL backlight ON/OFF	
RESET switch	Bootup	Pin hole on the rear housing
Notification switch	Notification LED OFF	
Compact flash card lock switch	Power OFF by opening the cover	
Card lock switch	Mechanical lock (the system is operable with this mechanism unlocked)	
Battery lock switch	Power OFF by opening the cover	

4.6 Communication Ports

4.6.1 16-pin Serial Interface

Table 4.6 16-pin serial interface

Item	Specification				Remark
Synchronization	Start/stop method				RS-232C level
Connector type	16-pin				
Baud rate	110 bps to 115.2 Kbps				
Pin assignment	Pin 1	NC	Pin 9	DOCKB	
	2	NC	10	CTS	
	3	DGND	11	DCD	
	4	V IN (+5V)	12	RxD	
	5	NC	13	TxD	
	6	ADP IN	14	RTS	
	7	ADP IN	15	DTR	
	8	DGND	16	DGND	

4.6.2 IrDA Interface

Table 4.7 IrDA Interface

Item	Specification	Remark
Synchronization	Start/stop method	
Baud rate	Max. 115.2 Kbps (IrDA ver. 1.0)	

Note:

Due to individual IrDA's specifications of a target device, communication via the IrDA interface may not be possible. Always make sure first the connectivity and operability of the PA-2400W with a device.

4.6.3 3-pin Interface

Table 4.8 3-pin Interface

Item	Specification	Remark
Synchronization	Start/stop method	
Baud rate	110 bps to 38.4 Kbps	

4.7 PC Card Interface

Table 4.9 PC Card Interface

Item	Specification	Remark
Standard	Conforms to PC Card Standard	
Slot	1 slot, Type II	
Power supply	Vcc: 3.3V/5V	
Applicable card	Refer to Chapter 2.4. PC Card.	

Note:

A PC card that requires more than 300 mA as its operation power cannot be installed to the PA-2400W.

Use of such the card may result the life of battery to be shorten or the low battery warning message to appear earlier or that the PA-2400W itself turns off the power without any advanced warning message.

4.8 Compact Flash Card Interface

Table 4.10 Compact flash card interface

Item	Specification	Remark
Slot	1 slot	
Power supply	Vcc: 3.3V	
Applicable card	Refer to Chapter 2.4. PC Card.	

4.9 Power Supply

Table 4.11 Power Supply

Item	Specification	Remark
Sources of main power	Lithium-ion battery pack Operating time: Approx. 15 hours (adequate for 10 minutes of continuous display, or 1 minute of continuous input) Approx. 10 hours (adequate for 90 Pocket Word strokes/minute)	See note below.
	Alkaline dry cell: LR6 x 2 Operating hours: Approx. 25 hours (adequate for 10 minutes of continuous display, or 1 minute of continuous input) Approx. 10 hours (adequate for 90 Pocket Word strokes/minute)	
	AC adaptor AD-C50200-S (output DC5V 2A)	
	Contact-type recharging terminal	Recharges battery via I/O Box.
Sub-power (for memory backup)	Button-type lithium battery (CR2032 x 1) Vanadium secondary battery (IVR2430 x 1) Backup time: Approx. 5 years (only if the new main battery is being installed always.)	
Memory backup period	With low voltage Alkaline dry cell: 28 days (counting when “Low battery” indication appears)	Days of backup period are only estimate. They may vary depending on environment.
	With new Alkaline dry cell: 56 days	
	With low voltage lithium-ion battery pack: 22 days (counting when “Low battery” indication appears)	
	With fully charged lithium-ion battery pack: 36 days	

Note:

Temperature and humidity surrounding the PA-2400W can severely affect the operating hour of installed batteries. High temperature and humidity will cause the battery life to be shorten.

4.10 Speaker

Table 4.12 Speaker

Item	Specification	Remark
Speaker	Dynamic speaker, 20 mm diameter. Sampling rate: 10-bit D/A 8/11.025/22.05 KHz	For audio output

4.11 Microphone

Table 4.13 Microphone

Item	Specification	Remark
Microphone	Electronic condenser type Sampling rate: 10-bit AD 8/11.025/22.05 KHz	For audio input

4.12 LED

Table 4.14 LED

Item	Specification	Available LED	Remark
LED	Alarm notification x 1	Notification LED	Red
	Battery status indication x 1	Full-charge condition LED	Green

4.13 Dimensions and Weight

Table 4.15

Dimensions	179 x 107 x 21 mm (when the cover is closed)
Weight	370 g (approx.)

4.14 Environment Data

Table 4.16

Temperature in operation	0 to 40°C
Temperature in storage	-10 to 50°C
Humidity in operation	30 to 80%RH
Humidity in storage	30 to 90%RH